ABSTRACT OF THE DISCLOSURE

A radiation exposure region to be irradiated with particle beams and a peripheral region thereof are respectively divided into pluralities of exposure regions, radiation treatment simulation for applying particle beams according to the shape of each divided exposure region is performed, and a radiation treatment condition is obtained for causing the flatness of the radiation exposure region to be in a desired range, and a dose of particle beams applied to the unit exposure region of the peripheral region to be minimum. Thus, the problem of low efficiency of radiation is solved.